

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

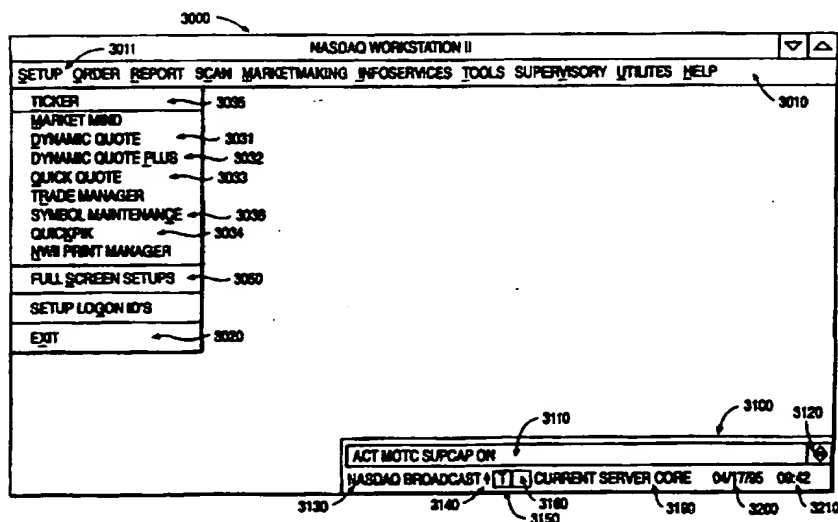
THIS PAGE BLANK (USPTO)



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification: G06F 17/60	A1	(11) International Publication Number: WO 98/13778 (43) International Publication Date: 2 April 1998 (02.04.98)
(21) International Application Number: PCT/US97/17131 (22) International Filing Date: 25 September 1997 (25.09.97) (30) Priority Data: 08/722,847 26 September 1996 (26.09.96) US (71) Applicant: THE NASDAQ STOCK MARKET, INC. [US/US]; 1735 K Street, N.W., Washington, DC 20006-1506 (US). (72) Inventors: MARTYN, Peter, 417 Overbrook Road, Ridge- wood, NJ 07450 (US). DENAT, Mark; 127 Cedar Hill Road, Bedford, NY 10506 (US). PANG, Mei; 6 Woods End Road, West Orange, NJ 07052 (US). FLYNN, Edward; 3 Williams Lane, Newtown, CT 06470 (US). WALDO, Michael; 24 Pocono Lane, Danberry, CT 06810 (US). SWEET, Pamela, A.; 73 Dorchester Court, Beacon Falls, CT 06403 (US). COORDS, Deane; 11 Brierwood Drive, Woodbridge, CT 06525 (US). HALL, Diane, Geberth; 15 Flint Avenue, Larchmont, NY 10538 (US). SLOMOWITZ, Ira; Apartment 9A, Moshe Dayan Street 6A, Isfar, Saba (IL). FRANKE, Maureen; 12 Walnut Street, Jersey City, NJ 07305 (US).	(74) Agents: GARRETT, Arthur, S. et al.; Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P., 1300 I Street, N.W., Washington, DC 20005-3315 (US). (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the</i> <i>claims and to be republished in the event of the receipt of</i> <i>amendments.</i>	

(54) Title: ON-LINE TRANSACTION PROCESSING SYSTEM FOR SECURITY TRADING



(57) Abstract

A data processing system provides an interface with a securities exchange system over which securities are traded. The system allows a user to configure displays (3000) tailored for specific functions and to show displays (3050) for a particular security. The user may also view a display showing information about selected securities (3034), monitor trade activity, participate in a trade and report trades. In addition, a user may display information for a selected set of securities on a continuously updated basis (3035) and can easily select from a displayed list, a desired security and certain information and functions associated with the selected security.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakhstan	R	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LJ	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

ON-LINE TRANSACTION PROCESSING SYSTEM FOR SECURITY TRADING

Background Art

The present invention relates generally to online processing of transactions in a multi-user environment. More particularly, the present invention relates to a transaction processing system for a securities market.

In a securities market, traders buy and sell securities using offers and bids. Although the term "security" usually means a share in a corporation, the term may have a broader meaning which is proper for a full understanding of this invention. The chief characteristic of a security for purposes of this invention is that it may be traded over a common system or exchange.

Sellers advertise "offers" or prices at which they will sell their securities, and buyers transmit "bids" or prices at which they will buy securities. Of course, sellers attempt to sell at the highest price while buyers attempt to buy at the lowest price. The "inside quote," which is the highest offer or the lowest bid, represents the best price for sellers and buyers.

To compete effectively, traders require certain information to determine when they have the most advantageous situation to sell or buy. That information includes what other traders are offering or bidding.

Traditionally, traders exchanged their orders on a stock floor such as the New York or American Stock Exchanges. The National Association of Securities Dealers, Inc. (NASD), however, created an on-line transaction processing system for trading securities. This system allows traders to make quotes and find inside quotes quickly and easily. To use this system, NASD supplies its users with workstations having screen displays, some of which may be customized and some of which are fixed. This system provided capabilities and services that traditional systems did not.

An object of this invention is to advance the current system and provide additional information to traders about securities and the securities market that responds quickly to the fast-paced securities market, flexible.

Another object of this invention is a system to allow traders to make and report trades simply and easily.

- 2 -

Additional objects and advantages of the invention will be set forth in part in the description which follows, and in part will be obvious from the description, or may be learned by practice of the invention. The objects and advantages of the invention will be realized and attained by means of the elements and combinations particularly pointed out in the appended claims.

Disclosure of the Invention

To achieve the objects and in accordance with the purpose of the invention embodied and broadly described herein, the present invention includes a method of customizing the displays according to this invention that operates in a data processing system providing a user an interface with a securities exchange system over which securities are traded. A system display database contains information to be shown in system displays that show information about the securities exchange system. The method comprises the steps, implemented by the data processing system, of: receiving from a user a first input requesting a maintenance display indicating which system display shows information about a desired security; displaying, in response to the first input, the maintenance display; receiving a second input from the user indicating a change in the system display that shows the information about the desired security; and updating the system display database to reflect the changes indicated by the second input.

Another method according to this invention of providing information on a desired security uses a data processing system providing a user interface with a securities exchange system for trading securities. The users trade securities that have an associated set of information. The method comprises the steps, implemented by the data processing system, of: receiving, from a user a first input requesting a display for the desired security, the display containing a predetermined subset of information selected from the set of information associated with the desired security; displaying the display containing a predetermined subset of information for the desired security; receiving a second input from the user specifying a trade of the desired security; executing the trade; and reporting the trade to the securities exchange system.

Yet another method of providing information on selected securities according to this invention also operates in a data processing system providing an interface with a securities exchange system for trading securities in which users trade securities according

- 3 -

to offers and bids. The method comprises the steps, implemented by the data processing system, of: receiving from a user a first input requesting a ticker display containing information associated with a selected set of securities; displaying the ticker display; scrolling the selected information across the ticker display in a predetermined scroll direction; receiving from a user a second input changing the information associated with the selected set of securities; and scrolling the changed selected information.

A further method of providing information to a user on selected securities according to this invention operates also in a data processing system that provides a user interface with a securities exchange system for trading securities. The method comprises the steps, implemented by the data processing system, of: creating a first window containing a plurality of icons each associated with a different security; displaying the first window; receiving from the user a second input selecting one of the plurality of icons; and displaying, in response to the second input, a second window containing information and functions associated with the security associated with the selected icon.

Both the foregoing general description and the following detailed description are only exemplary and explanatory and do not restrict the invention as claimed.

The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate embodiments of the invention and together with the description, serve to explain the principles of the invention.

Brief Description of the Drawings

Fig. 1 is an illustration of the NWII hardware system architecture according to a preferred embodiment of the present invention;

Fig. 2 is an illustration of a Logon window of the preferred embodiment of the present invention;

Fig. 3 is an illustration of a Main window of the preferred embodiment of the present invention;

Fig. 4 is an illustration of a Dynamic Quote window;

Fig. 5 is an illustration of a Dynamic Quote setup window;

Fig. 6 is an illustration of the Dynamic Quote Plus window;

Fig. 7 is an illustration of the Dynamic Quote Plus setup window;

Fig. 8 is an illustration of a Quick Quote window;

- 4 -

Fig. 9 is an illustration of a Quick Quote setup window;
Fig. 10 is an illustration of a QuickPik window;
Fig. 11 is an illustration of a QuickPik setup window;
Fig. 12 is an illustration of a Ticker window;
Fig. 13 is an illustration of a Ticker setup window; and
Fig. 14 is an illustration of a Symbol Maintenance window.

Best Mode for Carrying Out the Invention

Reference will now be made in detail to preferred embodiments of this invention, examples of which are illustrated in the accompanying drawings. Wherever possible, the same reference numbers will be used throughout the drawings to refer to the same or like parts or steps. The following description is organized as follows:

- A. Introduction
- B. System Overview
- C. Dynamic Quote
- D. Dynamic Quote Plus
- E. Quick Quote
- F. Quickpik
- G. Ticker
- H. Symbol Maintenance
- I. Conclusion

A. Introduction

The preferred embodiment of the invention is a NASDAQ Workstation II (NWII). NWII provides users with information necessary for monitoring and trading securities over a securities exchange system. NWII provides users who are traders with the information they need to make quick decisions so they can respond to market conditions quickly and maximize profits. NWII also allows traders to tailor information to suit their individual needs.

To obtain a complete understanding of the operation of the preferred embodiments, certain terms must be understood. Investors buy a "security" with the expectation of receiving a share of the profits made by a corporation. Security trading begins when a party having a security or acting for an owner of a security sets an "offer"

- 5 -

price and a potential purchaser sets a "bid" price. A "quote" may be an "offer" price, a "bid" price, or a combination of both an "offer" and "bid" price.

When a seller and a buyer agree to a particular price for a security, they complete a "trade." Trades are initiated and completed by individuals, firms, dealers, who may be either individuals or firms, and brokers.

The competing interests between sellers and buyers create the market and define its operation. As discussed above, the situation representing the best price for sellers and buyers is called the "inside quote." The inside quote consists of the highest offer and the lowest bid.

B. System Overview

Fig. 1 shows a diagram of an automated securities system 100 capable of implementing the present invention. System 100 includes a central computer 110 and several work stations 120, 121, 122, 123, 124, 125, 126, 127, and 128. Central computer 110 and work stations 120-128 can be any equipment capable of performing the functions described below.

Each work station 120-128 preferably includes a display 130, a keyboard/input device 135, a printer 140, and a processing unit/memory 150. Processing unit/memory 150 generates various windows shown on display 130, prints out information on printer 140, receives user inputs from keyboard/input device 135, and communicates with central computer 110. Processing unit/memory 150 also performs various local logical and arithmetic operations as required. Both central computer 110 and workstations 120-128 contain portions of the software which make up the NWII software system.

In general, workstations 120-128 contain those portions of the NWII software that interact directly with NWII users, including data presentation and display, data transfer with central computer 110, and storage in system display databases of user-defined information. That information includes transaction information that contains identifying parameters for trading securities over the securities exchange system.

Central computer 110 contains those portions of the NWII software that interact with workstations 120-128, manipulate database information 129 about securities and users, and communicate with other data processing systems (not shown). Also, although

- 6 -

the description of the preferred embodiment is given with reference to window-based user interface, many different types of display interface may be used to implement this invention.

To participate in the automated securities trading of this invention, an NWII user must log onto the system. Each NWII user has a corresponding ID and password. A user's ID is associated with a firm to which a particular workstation is registered.

The NWII software residing on workstations 120-128 initially presents a Logon window 2000 as shown in Fig. 2. The user enters an ID in text box 2010 and password in text box 2020, and either selects Logon button 2030 to execute a logon process, Help button 2050 for help, or Exit button 2040 to exit.

Logon window 2000 also includes SDP text area 2060 and OrgId text area 2070. The user's system places the user's service delivery platform name in SDP text area 2060 and the user's organization identification in OrgId text area 2070 automatically when Logon window 2000 is opened.

Logon window 2000 also includes Screen Setup box 2080. If the user selects Screen Setup box 2080, the NWII software opens an initial display as configured when the user last exited the NWII software.

Once the NWII software determines that the user is authorized, the NWII software presents Main window 3000, including menu bar 3010 shown in Fig. 3. Menu bar 3010 includes several pull-down menus such as menu 3020. The NWII software presents menu 3020 when the user selects Setup option 3011.

Pull-down menu 3020 includes user-selectable setup functions such as Ticker setup function 3031, Market Mind function 3032, Dynamic Quote setup function 3033, Dynamic Quote Plus setup function 3034, Quick Quote setup function 3035, Trade Manager function 3036, Symbol Maintenance function 3037, QuickPik setup function 3038, and Print Manager function 3039. Each setup function 3031-3039 causes the NWII software to display a setup window for the corresponding setup functions, and within each setup window, the user may open a corresponding display window. For example, the user may select Dynamic Quote setup function 3033 from pull-down menu 3020 causing the NWII software to present a display for setting up a Dynamic Quote

- 7 -

window. The user may then open a Dynamic Quote window after the NWII software presents the setup window.

The user may instead select Full Screen Setups function 3040 from pull-down menu 3020. If the user selects Full Screen Setups function 3050, the NWII software allows the user to select either a screen display containing windows preselected by NWII system managers or the user's most recently configured screen display. The setup of Logon IDs and Exit functions 3041 and 3042, respectively, are self-explanatory.

The NWII software also displays a System status window 3100, shown in Fig. 3, whenever the user is not displaying windows lacking areas for displaying system messages. System status window 3100 includes message area 3110, scroll bar 3120, system text area 3130, status indicator area 3140, operating version area 3150, news indicator area 3160, server name area 3170, date area 3180, and time area 3190.

The NWII software places system messages in message area 3110. If all of the system messages cannot fit into message area 3110, then the user may use scroll bar 3120 to scroll up or down through the messages displayed in message area 3110. The NWII software displays the system name in system text area 3130.

Status indicator area 3140 allows the NWII software to display the current status of the system. A solid up arrow, illustrated in status indicator area 3140 of Fig. 3, indicates that the system is up. A solid down arrow indicates that the system is down. Of course, one skilled in the art would recognize that specific ways of indicating system status would be a matter of design choice.

Operating version area 3150 allows the NWII software to indicate what version of NWII the system is running. Fig. 3 shows "P" which corresponds to a production version. The NWII software displays an "N" in news indicator area 3160 any time the system administrators transmit a news message. In server name area 3190, the NWII software displays "Current Server:" and the name of the user's current server. The NWII software displays the current date in date area 3200 and the current time in time area 3210.

The following description discusses certain of the windows corresponding to setup functions 3031-3039. Each description of a window begins with a description of the window, and closes with a description of a how to set up that window.

C. Dynamic Quote

The Dynamic Quote window will be the main focal point of activity for most users. Although users constantly scan the entire market, they will likely wish to concentrate on a single security. The Dynamic Quote window provides users with instant access to user-defined primary activities for a chosen security and to key pieces of information for that security. The Dynamic Quote window also allows users to monitor individual Market Maker quotations and other security data in real time. A Market Maker is an individual or corporation allowed by the Securities and Exchange Commission (SEC) to register individual securities for trading and makes a market in the issue.

Fig. 4 shows a Dynamic Quote window 4000. As discussed above with regard to Fig. 3, Dynamic Quote window 4000 may be accessed from Dynamic Quote setup function 3033, or Full Screen Setups function 3040, or via Screen Setup box 2080 if so configured.

To access the features of Dynamic Quote window 4000, the user types a name of a security in text box 4010. In response, the NWII software fills in various information fields of Dynamic Quote window 4000. In Last text area 4020, the NWII software fills in the last sale information for the identified security. In HiLo text area 4022, the NWII software fills in the high and low offers and bids for the identified security. In Ins text area 4024, the NWII software indicates the inside quote for the security. In Vol text area 4025, the NWII software fills in the volume of the market of the identified security. In PCL text area 4026, the NWII software fills in the previous day's closing price for the selected security.

In status area 4028, the NWII software uses a flag icon to indicate the market currently being viewed. If the domestic market is closed, the NWII software will display information for a foreign market that is open as determined by the NWII software. If the user wishes to switch between the domestic market and a foreign market, he selects market switching function (not shown).

Box 4030 contains information for foreign markets. Text area 4032 shows the previous day's closing price for the selected security, and text area 4036 shows the most recent inside quote information for the selected security. If the domestic market is closed

- 9 -

and a foreign market is being displayed, box 4030 contains the previous day's closing price and most recent inside quote for the domestic market.

A user may change its offer and bid for the indicated securities by a designated Tick Size using buttons in Quick Update box 4040. Tick Size text box 4042 displays a default Tick Size for the selected security. The user changes the offer and bid by this tick value by selecting Up button 4045 or Dn button 4047.

The buttons and field in box 4050 allow the user to report trades or enter an order for a trade. A default condition of either reporting trades or entering orders is determined using a Dynamic Quote setup window as described below.

To report a trade, the user selects button 4055, enters appropriate information into text box 4056, and selects Send button 4057. The user may report a trade as either a Market Maker or an Order Entry Firm, depending on the user's designation. An Order Entry Firm is an individual or corporation allowed by the SEC to register securities for trading but is not making a market in an issue that they have an order.

After selecting button 4055, a mark in circle 4051 identifies the user as a Market Maker and a mark in circle 4053 identifies the user as an Order Entry Firm. A user can determine the defaults for the status and circles 4051 or 4053 using the Dynamic Quote Setup window described below. Selecting Clear button 4058 deletes all information in text box 4056 and resets circles 4051 and 4053 to their default values.

To enter an order, the user selects button 4059, enters appropriate information into text box 4056, and selects Send button 4057. To enter an order, the user may enter the order via SelectNet or any other type of order entry execution service. Both SelectNet and the other types of order entry execution services are automatic order execution services available to users. SelectNet allows users to enter an order as an agent or a principle for any number of shares and the other types of order entry services usually limit the number of shares which can be ordered. If a user selects button 4059, the NWII software will identify the other service by button 4051 and SelectNet by button 4053. Users determine the defaults for button 4051 or 4053 using the Dynamic Quote Setup window described below. Again, Clear button 4058 functions as described above.

- 10 -

As discussed above, buttons 4051 and 4053 serve different functions depending on whether the user is reporting a trade or entering a trade. If the user is entering a trade, buttons 4051 and 4053 indicate which order entry service is being selected. If the user is reporting a trade, buttons 4051 and 4053 indicate whether the user is reporting the trade as either a Market Maker or an Order Entry firm.

Box 4060 shows information for both offers and bids, or either offers only or bids only in the text boxes 4062 and 4064, depending on selections made during configuration as described below. If the user selects both offers and bids, the default option, the NWII software displays a ranked list of bids in text box 4062 and a ranked list of offers in text box 4064. Bids and offers are ranked by price and then by time. For example, the first bid or offer at the best price is listed first.

If all of the information cannot be displayed simultaneously, users may scroll text boxes 4062 and 4064 using scroll bars 4066 and 4067, respectively, which are standard features of many window products. Alternatively, if the user chooses to see offers only or bids only, the NWII software displays a ranked list of the offers bids which in both boxes 4062 and 4064.

Eight programmable buttons, 4080 through 4087, allow users to customize functions using the Dynamic Quote Setup window described below. To select a customized function, the user need only select the button corresponding to that function.

To set up a Dynamic Quote window such as window 4000, a user selects Dynamic Quote setup function 3031 (Fig. 3) from pull-down menu 3020. In response, the NWII software displays Dynamic Quote Setup window 5000, shown in Fig. 5. The user selects a particular Dynamic Quote window by highlighting one of the windows listed in Window list box 5010. If all of the Dynamic Quote Windows cannot be displayed at once, the user may scroll through the listed windows in Window list box 5010 using scroll bar 5011. Alternatively, the user may type the name of the window in Window text box 5015.

To delete the selected window, the user merely selects Delete button 5020. This removes the window from the entire system.

The user adds a new window by typing a name for the new window in text box 5015 and then pressing either the Add Before button 5021 or Add After button 5022.

- 11 -

Add Before button 5021 adds the new window above the highlighted window name in Window list box 5010, and Add After button 5022 adds the window below the highlighted window name in Window list box 5010.

The user may also select a "hot key" which will cause the NWII software to immediately display the corresponding Dynamic Quote window from any other window. The user chooses a "hot key" from a drop down list displayed after the user selects combination box 5030.

The user may set certain information to be used as default information for the Dynamic Quote window 4000 using box 5040. The user selects buttons 5042 and 5043 to choose QuickOrder or QuickReport, respectively. Providing QuickOrder and QuickReport functions in Dynamic Quote window 4000 eliminates the need for the user to exit Dynamic Quote window 4000 to enter orders and report trades.

Selecting QuickOrder button 5042 causes the NWII software to select QuickOrder button 4059 as a default when Dynamic Quote window 4000 is opened. To place an order, a user enters information such as the buy or sell quantity, the security's symbol, and an identification of the firm or agency making the order.

Selecting QuickReport button 5043 causes the NWII software to select QuickReport button 4055 as a default when opening Dynamic Quote window 4000. To report a trade, a user enters information such as the buy or sell quantity, the security's symbol, and the identification for the firm or agency making the order.

Using buttons 5044 and 5045 selects an order entry service, such as a small order execution order service or SelectNet, respectively. NASD provides SelectNet, an order negotiating service, and small order execution services. The user must use SelectNet for orders above a certain number of securities.

To place an order using SelectNet, the user inputs information into text box 4056. That information may include user identification, whether the order is for a buy or a sell, and the price.

To place an order using the small order execution service, the user places similar information into text box 4056. One difference is that the price is limited to the market price. The order is then automatically executed without negotiation. Of course, other types of order execution services may be provided by NASD.

The user selects button 5046 to set the default type to Marker Maker, and selects button 5047 to set the default type to an Order Entry Firm. To insure that the values become defaults, the user must select Save button 5050. Otherwise the system uses the default values of Quick Order, SelectNet, and Market Maker. The user may also select Open button 5052 which causes the software to save the values as defaults and then open a Dynamic Quote window 4000.

Box 5070 lets the user set up the default display for text boxes 4062 and 4064. To display information about both offers and bids as the default, the user selects Combine button 5071. To display information about bids only, the user selects Bid Only button 5072. To display information about offers only, the user selects Offer Only button 5073.

In box 5080, the user sets up the programmable function buttons 4080 through 4087. Boxes 5081-5088 correspond respectively to buttons 4080-4087. For example, a user uses combination box 5086 to select the programmable function of button 4085 from a list of available functions. When the user selects combination box 5086, the software displays a list of functions which may be assigned to button 4085. From this list, the user selects the function to be assigned to button 4085.

At any time, but at least when all the desired changes have been made, the user selects Save button 5050 to cause the NWII software to save the changes. After the user has completed all changes and wishes to exit the Dynamic Quote setup function, the user presses End Setup button 5054 to cause the NWII software to close the Dynamic Quote setup window.

Several other buttons in Dynamic Quote Setup window 5000 provide additional capabilities for the user. For example, when the user selects Open button 5052, the NWII software opens the selected window. When the user selects Demo button 5056, the NWII software opens a demonstration window to show the user an example of a Dynamic Quote window for those users unfamiliar with NWII operation. When the user selects Color button 5058, the NWII software allows the user to select various colors for the selected Dynamic Quote window.

- 13 -

D. Dynamic Quote Plus

The Dynamic Quote Plus window 6000 shown in Fig. 6 is similar to the Dynamic Quote window 4000, but also allows the user to view and perform activities to manage trades in a particular security.

Dynamic Quote Plus window 6000 may be accessed from pull-down menu 3020 using Dynamic Quote Plus setup function 3034 or Full Screen Setups function 3040, or via Screen Setup box 2080 if so configured. For brevity, the fields of Dynamic Quote Plus window 6000 that operate the same as corresponding features of Dynamic Quote window 4000 will not be explained again. In text box 6010, the NWII software will display all messages related to the security identified in box 6005. If all of the messages associated with a particular security cannot be displayed simultaneously, the user may scroll throughout the entire list using the scroll button 6015.

The user selects buttons 6020 through 6090 to manage a particular security. AON button 6020 allows the user to accept an order "All or Nothing." This is done when a user only wants to accept an order only in its entirety. If the user selects AON button 6020, the NWII software will accept the order only if no other users have accepted portions of the order.

Any button 6030 allows the user to accept any portion of an order regardless of whether other users have accepted portions of the order. ExecSS button 6040 allows the user to execute a short sell. A user executes a short sell when he sells securities he does not currently own but will buy at a later date. Obviously, in those instances the user hopes the later price is lower than the price at which he has just sold.

When the user selects Partial button 6050, the software displays a negotiation window so that the user may accept a portion of an order. When the user selects Counter button 6060, the software displays a negotiation window so that the user may counter an order.

Selecting Decline button 6070 allows the user to decline a preferential order. A preferential order is an order directed to a Market Maker in a particular issue. A preferential order sent at the Market Maker's quote may create liability because the Market Maker may have to execute some portion of the order.

- 14 -

When the user selects Kill button 6080, the software cancels all open orders for the user. Replace button 6090 allows the user to cancel an open order and replace it with a new order.

The Dynamic Quote Plus setup window 7000 shown in Fig. 7 operates similar to the setup window Dynamic Quote setup window 5000 but includes an additional box 7010. If the user selects box 7010, the NWII software displays all preferential orders for securities in text box 6010. The default for this option is not to display preferential orders for all securities.

E. Quick Quote

The Quick Quote function provides a user quick access to commonly requested information quickly, and allows users to give commonly needed inputs quickly. For example, a user may view the best bid, offer, and last sale of a specific security, view the user's own quote for a specific security, monitor the depth of the market for that security (if the user is a Market Maker in the security), update a quote for a security, and enter a trade report or order.

When the user opens a Quick Quote window from pull-down menu 3020 using either Quick Quote setup function 3035 or Full Screen Setups function 3040, or via Screen Setup box 2080 if so configured, the NWII software presents the user with Quick Quote window 8000 as shown in Fig. 8. The user then enters a security's symbol in text box 8010, and the NWII software displays the highest bid for that security in the Bid text area 8011 and the lowest offer in Offer text area 8012. A security's symbol is determined by the Compliance section of the SEC and the Market Operations personnel.

If the user is a Market Maker, the NWII software displays the depths of the bid and offer markets in text areas 8013 and 8014, respectively. The NWII software updates these values as changes occur in the system. If the user is a Market Maker, the NWII software also displays the user's own bid and offer in "Your" text area 8015.

The Quick Update box 8020 allows the user to update quotes quickly by specific amounts similar to the Quick Update box 4040 in Fig. 4. The buttons and text field in box 8030 also operate similarly to the box 4050 of Fig. 4 and allow a user to report trades or enter an order.

- 15 -

To set up a Quick Quote window, a user selects Quick Quote setup function 3035 from pull-down menu 3020 (Fig. 3), and the NWII software presents a Quick Quote setup window 9000 as shown in Fig. 9. The user selects which Quick Quote window to configure or create using boxes 9010 and 9015 and buttons 9020-9022 similar to the use of boxes 5010 and 5015 and buttons 5020-5022 in window 5000 of Fig. 5.

The user may designate a "hot key" to cause the NWII software to immediately display a Quick Quote window to the user from any other window. To choose a "hot key" button for the selected window, the user selects the keys using combination box 9030.

Several other buttons in Quick Quote Setup window 9000 provide additional capabilities for the user. For example, when the user selects Open button 9040, the NWII software opens the selected window. When the user selects Demo button 9045, the NWII software opens a demonstration window to show the user an example of a Quick Quote window. When the user selects Color button 9048, the NWII software allows the user to select various colors for the selected Quick Quote window.

In box 9050, Setup Window 9000 also allows the user to set certain default values for the selected Quick Quote window 8000. The user may use buttons 9052 and 9053 to select either QuickOrder or QuickReport, respectively, as a default state. The user may also use buttons 9055 and 9056 to select a small order execution service or SelectNet, respectively. The user selects button 9058 to set the default type for the selected window to Marker Maker, and selects button 9059 to set the default type to an Order Entry Firm. If the user does not select button 9060, quick entry functions are not enabled.

At any time, but at least after the user has completed all of the desired changes, the user should select Save button 9080 to cause the NWII software to save the changes. When the user wishes to exit the Setup function, the user presses End Setup button 9090, which causes the NWII software to close the Symbol Maintenance window.

F. QuickPik

When the user opens a QuickPik window from pull-down menu 3020 using either QuickPik setup function 3038 or Full Screen Setups function 3040, or via Screen Setup box 2080 if so configured, the NWII software presents the user with a QuickPik window 10000 as shown in Fig. 10.

QuickPik window 10000, allows the user to open a Dynamic Quote or Dynamic Quote Plus window immediately for an individual security. For example, Fig. 10 shows a QuickPik window twenty-four securities icons. When the user selects an icon button associated with a particular security, then the NWII software opens a Dynamic Quote window and presents it to the user. If a Dynamic Quote window is already displayed for the selected security, the software moves that Dynamic Quote window to the foreground.

Each button is associated with a particular security. Thus, the user selects icon button 10010 to open a Dynamic Quote or Quick Quote window for a security symbol displayed on icon button 10010. Users determine the number of icon buttons as well as the securities associated with each icon button when setting up QuickPik window 11000.

When the user selects QuickPik setup function 3038 from pull-down menu 3020 (Fig. 3), the NWII software presents a QuickPik setup window 11000 as shown in Fig. 11. The user selects which QuickPik window to configure or create using boxes 11010 and 11015 and buttons 11021-11023 similar to the use of boxes 5010 and 5015 and buttons 5020-5022 in window 5000 of Fig. 5.

The user sets options for automatic sequencing through buttons displayed in QuickPik window 100000 using Cruise Control Option box 11030. If the user selects Enable Cruise Control button 11031, then the NWII software will enable the cruise control feature which causes the NWII software to sequence through windows associated icons buttons in Fig. 5 just as if the user were actually selecting those icon buttons in sequence.

In text box 11032, the user enters a delay, in seconds, that the NWII software will wait before displaying a next Dynamic Quote or Quote Plus window. By choosing a particular start/stop key from combination box 11033, the user can stop the NWII software from sequencing until the selected start/stop key is pressed again.

- 17 -

The user sets certain display options for QuickPik window using Symbol Arrangement box 11040. In box 11041, the user enters the number of icon buttons displayed across the screen. The user enters a number of icon buttons which will be displayed down the screen in box 11042.

If the user selects button 11043, the NWII software arranges the securities in the order according to text box 11010. If the user selects box 11044, the NWII software arranges the symbols alphabetically.

Buttons 11051 through 11054 operate similarly to the similarly named buttons in window 5000.

G. Tickers

The user opens a Ticker window from pull-down menu 3020 using either Ticker setup function 3031, Full Screen Setups function 3040, or Screen Setup box 2080 if so configured. Once the Ticker window is selected, the NWII software presents the user with a Ticker window 12000 as shown in Fig. 12.

Ticker window 12000 displays every trade and quote update for all or a selected portion of all securities. The ticker may display last sale trade reports, Market Maker quotation changes, and inside quote changes for all equities.

When the user selects Ticker setup function 3031 from pull-down menu 3020, the NWII software presents a Ticker setup window 13000 as shown in Fig. 13. The user selects which Ticker window to configure or create using boxes 13010 and 13020 and buttons 13021-13023 similar to the use of boxes 5010 and 5015 and buttons 5020-5022 in window 5000 of Fig. 5.

Once the user has selected a particular ticker window, the NWII software displays in box 13030 all of the securities included in the selected ticker window. If all of the symbols for the selected securities cannot fit into one screen, the user may use scroll bar 13032.

Users may add or delete securities from a selected ticker window using the boxes 13030 and 13040 and buttons 13041 through 13043 similar to boxes 13010 and 13020 and buttons 13021-13022.

The ticker options in Ticker Options box 13060 allow the user to change a scroll direction of the ticker and the number of lines the ticker occupies. The user selects

- 18 -

button 13061 to set the scroll direction as left to right and button 13062 to set the scroll direction as right to left. In box 13063, the user inputs the number of lines for a particular ticker. The number can vary from two to the total number of lines on a full page.

The symbol options in Symbol options box 13070 allow a user to tailor the information displayed in the ticker for a particular security. Selecting box 13071 causes the NWII software to display last sale trade reports. Selecting box 13072 indicates the minimum share amount of the displayed reports. Selecting box 13073 causes the NWII software to display any changes to the inside quotes. Selecting box 13075 causes the NWII software to display the Market Maker quote updates. Box 13076 identifies the Market Makers whose quotes will be displayed.

Buttons 13080 through 13084 operate as the similarly named buttons in window 5000 of Fig. 5.

H. Symbol Maintenance

When the user selects Symbol Maintenance from pull-down menu 3020 using either Symbol Maintenance setup function 3037 or Full Screen Setups function 3050, or via Screen Setup box 2080 if so configured, the NWII software presents the user with Symbol Maintenance window 14000 shown in Fig. 14.

Symbol Maintenance window 14000 provides a central location for the user to view which securities are displayed in the various windows. Window 14000 allows the user to see the securities the user has chosen and provides a mechanism for the user to add or delete securities for other windows. Window 14000 also allows the user to change the default Tick Size and specify a separate SOES tick.

Window 14000 includes text box 14010 containing all of the symbols for securities the user has selected. For each of the symbols for the securities that the user has chosen, the NWII software will indicate Tick Size, SOES Tick Size, if there is one, and which of the various windows the security is included. For example, the security "AAPL" highlighted in Fig. 14 has a Tick Size of 1/8 and is included in a Ticker window, a MarketMind, a Trade Manager, and a QuickPik window. If all of the symbols cannot be displayed simultaneously in text area 14010, a user may scroll through symbol list using the scroll bar 14012.

- 19 -

To select a security, the user can use the Next button 14020 or Previous button 14021 to choose securities adjacent to the one currently selected, or the user can specify a particular security directly. To specify a security directly, a user would type the security into symbol text box 14025.

Once the user selects a security, the NWII software places the corresponding Tick Size for that security in Tick Size box 14030. To add a new security, the user merely enters the corresponding symbol in the text area 14025 and presses the Add button 14041. The Tick Size for this newly added security is initially the default Tick Size set by the NWII system managers. Initially, the security symbol is not displayed in any other windows. To delete a security from all windows, the user selects the security and then selects Delete button 14042.

To add the currently selected symbol to a particular window, the user merely selects a button corresponding to the desired window from button area 14050. For example, the user would select Ticker button 14051 to add the selected symbol to a Ticker window. The user would select Market Mind button 14052 to add the selected symbol to a Market Mind window, QuickPik button 14053 to add the selected symbol to the QuickPik window, and Trade Manager button 14054 to add the selected symbol to a Trade Manager window.

The user may delete the selected security from a particular window in an analogous manner using the buttons in area 14060. Buttons 14061 to 14064 correspond to buttons 14051 to 14054. The user may change the selected security's Tick Size by either typing the desired value in Tick Size box 14030 or by selecting one of the buttons in the area 14080 corresponding to the desired Tick Size.

To exit the Symbol Maintenance function, the user presses End Setup button 14086, which causes the NWII software to close the Symbol Maintenance window and to save any changes made since the last time the same button was selected when the user has completed all of the desired changes.

I. Conclusion

It will be apparent to those skilled in the art that various modifications and variations can be made in the implementation and structure of the present invention without departing from the scope or spirit of the invention. For example, different input

- 20 -

devices could be used to enter information into the system including, a mouse, a touch screen, voice input, an input pad, or similar devices. Similarly, the level of centralization of information may be left to the designer as well as the hardware configuration to implement the method.

Other embodiments of the invention will be apparent to those skilled in the art from consideration of the specification and practice of the invention disclosed herein. The specification and examples are exemplary only. The true scope and spirit of the invention is indicated by the following claims.

- 21 -

Claims

1. In a data processing system providing a user an interface with a securities exchange system over which securities are traded, wherein a system display database contains information to be shown in a plurality of system displays showing information about the securities exchange system, a method of customizing the displays comprising the steps, implemented by the data processing system, of:

receiving from a user a first input requesting a maintenance display indicating which of the plurality of system displays shows information about a desired security;
displaying the maintenance display in response to the first input;
receiving a second input from the user indicating a change in which of the plurality of system displays shows the information about the desired security; and
updating the system display database to reflect the changes indicated by the second input.

2. The method according to claim 1, further including the step, implemented by the data processing system, of:

altering the maintenance display to reflect the change indicated by the second input.

3. The method according to claim 1, further including the steps, implemented by the data processing system, of:

receiving a third input from the user representing the desired security being traded on the securities exchange system; and
displaying pre-selected information about the desired security in response to the third input.

4. The method according to claim 1, wherein the system display database also includes transaction information identifying parameters for trading the desired security over the securities exchange system, the method further including the steps, implemented by the data processing system, of:

displaying the transaction information about the desired security;
receiving a third input from the user indicating changes to the transaction information regarding the desired security;

- 22 -

updating the system display database according to the third input; and
altering the maintenance display according to the third input.

5. The method according to claim 4, wherein the securities exchange allows users to make offers or bids according to quotes that may be changed up or down by a Tick Size, and wherein the step of displaying transaction information includes the substep of:

displaying information about the Tick Size for desired security.

6. The method according to claim 5, further including the substeps of:
receiving a fourth input from the user to change the Tick Size of the desired security; and

updating the system display database to reflect the change indicated by the fourth input.

7. The method according to claim 4, wherein the securities exchange allows users to purchase securities using an automated ordering service that automatically executes a purchase according to quotes which may be changed up or down according to a Tick Size, and wherein the step of displaying transaction information includes the substeps of:

displaying an indication of the user's authorization to use the automated ordering service for the desired security; and

displaying, if the user is authorized to use the automated ordering service, information about the Tick Size of the desired security for the automated ordering service.

8. The method according to claim 7, further including the substeps of:
receiving a fourth input from the user to change the Tick Size for the automated ordering service; and

updating the system display database to reflect the change indicated by the fourth input.

9. The method according to claim 1, wherein the plurality of system displays are windows.

10. In a data processing system providing a user interface with a securities exchange system for trading securities, wherein users trade securities each having an

- 23 -

associated set of information, a method of providing information on a desired security comprising the steps, implemented by the data processing system, of:

receiving from a user a first input requesting a display for the desired security, the display containing a predetermined subset of information selected from the set of information associated with the desired security;

displaying the display containing a predetermined subset of information for the desired security;

receiving a second input from the user specifying a trade of the desired security; executing the trade; and

reporting the trade to the securities exchange system.

11. The method according to claim 10, wherein the step of displaying the display includes the substep, of

displaying a lowest offer and a highest bid.

12. The method according to claim 11, wherein a bid market depth is a number of market makers making bids on the desired security, a market maker being a trading firm registered with the securities exchange system to trade predetermined amounts of the desired security, and an offer market depth is a number of market makers making offers on the desired security, and

wherein the step of displaying the display includes the substep of

displaying the bid market depth and offer market depth for the desired security.

13. The method according to claim 11, wherein a market maker is a trading firm registered with the securities exchange system to trade predetermined amounts of the desired security according to a market maker offer and a market maker bid, and

wherein the step of displaying the display includes the substep of

displaying a user offer and a user bid.

14. The method according to claim 10, wherein securities are traded using bids, representing how much money the user will pay for the desired security, and offers, representing how much money a user will accept for the desired security, and a Tick Size represents an amount by which the user may change its bid and offer, and

wherein the step of displaying the display includes the substeps of:

- 24 -

displaying the Tick Size for the desired security;
receiving a third input from the user indicating a change in a bid and an offer by the user for the desired security by the Tick Size;
transmitting the change in the bid or offer to the securities exchange system; and
changing the display to reflect the change in the bid and the offer by the Tick Size.

15. The method according to claim 10, further including the step, implemented by the data processing system, of
ordering amounts of the desired security through an automated exchange service which automatically executes an order.

16. The method according to claim 10, wherein securities are traded using bids, representing how much money the user will pay for the desired security, and the associated set of information includes all of the bids associated with the desired security, and the step of displaying the display further includes the substep of
allowing the user to obtain a display of all of the bids associated with the desired security.

17. The method according to claim 10, wherein securities are traded using bids, representing how much money the user will pay for a security, and offers, representing how much money a user will accept for the desired security, wherein the associated set of information includes all of the bids and all of the offers associated with the desired security, and the step of displaying the display further includes the substep of

allowing the user to obtain a display of all of the bids and all of the offers associated with the desired security.

18. The method according to claim 10, wherein securities are traded using offers, representing how much money a user will accept for the desired security, and wherein the associated set of information includes all of the offers associated with the desired security, and the step of displaying the display further includes the substep of
allowing the user to obtain a display of all of the offers associated with the desired security.

- 25 -

19. The method according to claim 10, further including the steps, implemented by the data processing system, for providing functions associated with the display for the desired security of:

displaying a set of available functions;

receiving a third input from the user identifying a desired subset of the available functions;

displaying the desired subset of available functions in the display for the desired security;

allowing the user to select a function from the subset of available functions; and
executing the selected function.

20. The method according to claim 10, wherein the step of displaying the display further includes the substep of

displaying trade request information from other users; and

wherein the step of executing a trade further includes the substep of

communicating the user's trade requests with other users.

21. In a data processing system providing an interface with a securities exchange system for trading securities, wherein users trade securities according to offers and bids, a method of providing information on selected securities comprising the steps, implemented by the data processing system, of:

receiving from a user a first input requesting a ticker display containing information associated with a selected set of securities;

displaying the ticker display;

scrolling the selected information across the ticker display in a predetermined scroll direction;

receiving from a user a second input changing the information associated with the selected set of securities; and

scrolling the changed selected information.

22. The method according to claim 21, further including the steps, implemented by the data processing system, of:

receiving a third input from the user indicating a change in the scroll direction;

and

- 26 -

changing the predetermined scroll direction to reflect the change indicated by the third input.

23. The method according to claim 21, wherein the data processing system stores for each of the selected securities data including a lowest offer, a highest bid, a trade report, and market maker quotes, and the information associated with the selected set of securities indicates at least some of the data stored for each security in the set, wherein a market maker is a trading firm registered with the securities exchange system to trade predetermined amounts of a particular security, and wherein the step of scrolling the changed information includes the substeps of:

receiving a third input from the user indicating which of the data associated with the pre-selected securities is to be displayed; and

displaying the indicated data according to the third input.

24. The method according to claim 21 further including the step, implemented by the data processing system, of:

receiving a third input indicating a number of lines scrolled across the display; and

wherein the step of scrolling the selected information includes the substep of displaying the number of lines indicated by the third input.

25. The method according to claim 21, further including the step, implemented by the data processing system, of:

receiving a third input from the user indicating an order in which the selected securities are displayed; and

wherein the step of scrolling the selected information includes the substep of

displaying the selected securities in the order indicated by the third input.

26. In a data processing system providing a user interface with a securities exchange system for trading securities, a method of providing information to a user on selected securities comprising the steps, implemented by the data processing system, of:

creating a first window containing a plurality of icons each associated with a different one of a plurality of securities;

displaying the first window;

receiving from the user a second input selecting one of the plurality of icons; and

- 27 -

displaying, in response to the second input, a second window containing information and functions associated with the security associated with the selected icon.

27. The method according to claim 26, further including the step, implemented by the data processing system, of

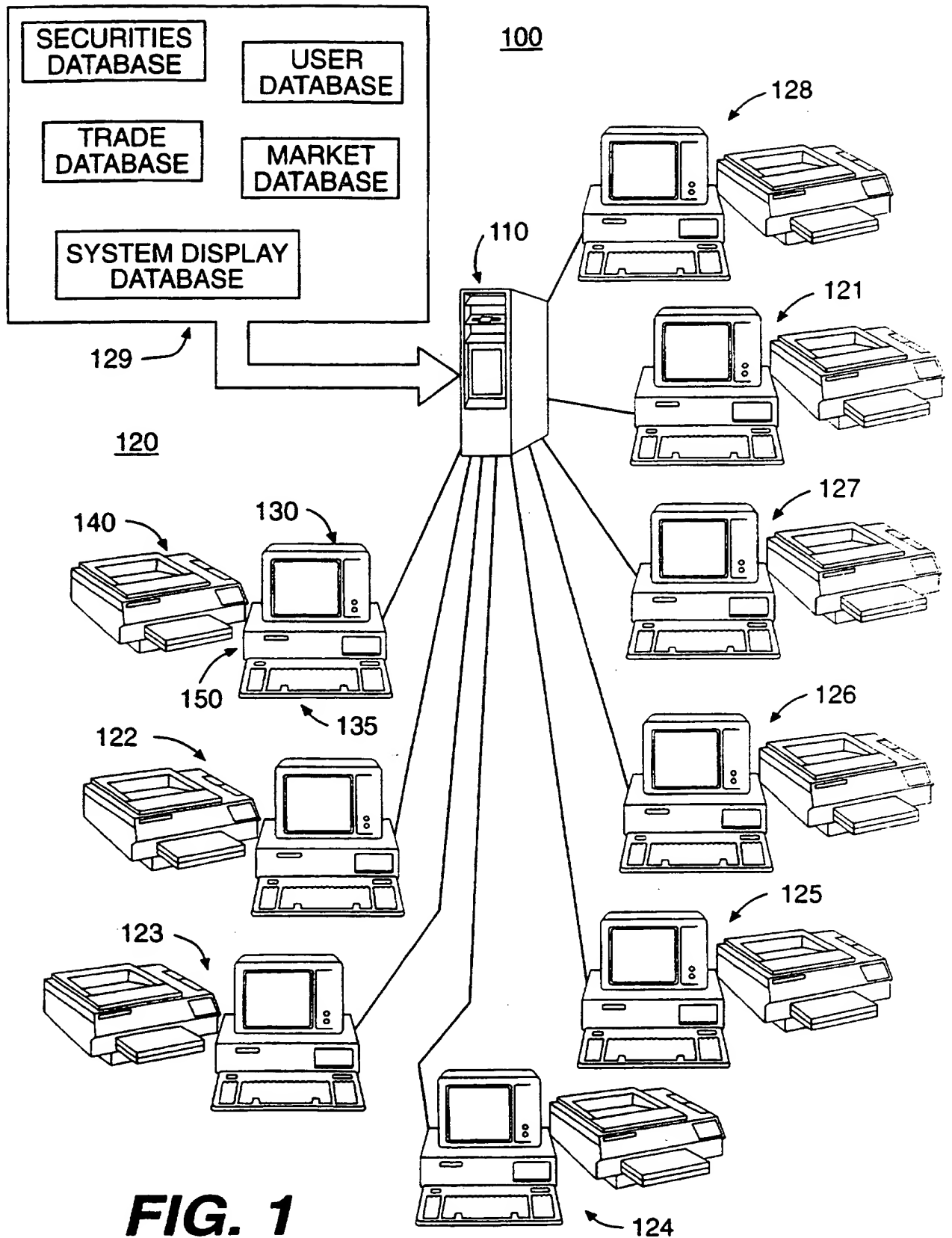
consecutively providing the second window in an order that the plurality of pre-selected securities appear in the first window.

28. A method according to claim 26, further including the steps, implemented by the data processing system, of:

receiving a third input from the user indicating a change in the securities and associated plurality of icons; and

changing the securities and associated plurality of icons according to the third input.

1 / 13

**FIG. 1**

2 / 13

2000

NASDAQ WORKSTATION II LOGON

2060 SDP: ORGID: 2070

 core NEED

PLEASE ENTER YOUR...

USER ID: 2010

PASSWORD: 2020

2040 ☒ SCREEN SETUP 2050

2030 LOGON HELP EXIT 2040

COPYRIGHT © 1993
NASDAQ STOCK MARKET, INC.
ALL RIGHTS RESERVED
COPYRIGHTED AS AN
UNPUBLISHED WORK.

FIG. 2

3 / 13

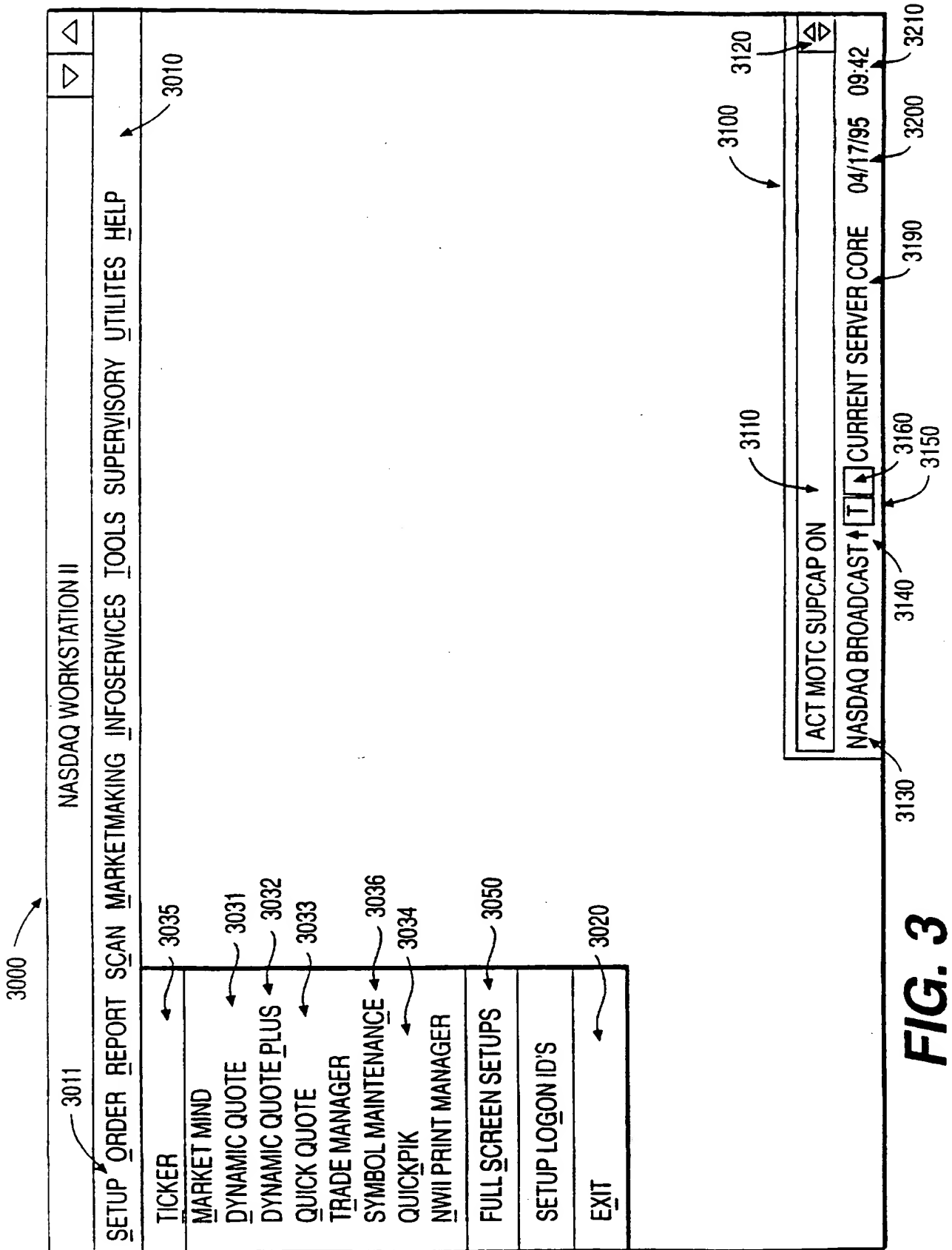


FIG. 3

[illegible]

FIG. 4

5000

DYNAMIC QUOTE SETUP 5070

DYNAMIC QUOTATION DISPLAY AS: 5072 5073

☒ COMBINED ☐ BID ONLY ☐ OFFER ONLY

DYNAMIC QUOTATION WINDOWS: 5071

TEST 5010

TEST1 5042

WINDOW: 5015

ADD BEFORE 5021 ADD AFTER 5022 DELETE 5020

HOT KEY CHOICE: 5021

ALT F1 5030

OPEN 5096 DEMO 5097 COLOR 5098

SAVE 5050 END SETUP 5095

QUICK ENTRY FUNCTION PREFERENCES: 5040

☒ ENABLE QUICK ENTRY FUNCTIONS 5046

INITIAL QUICK FUNCTION: 5044

☐ QUICKREPORT ☒ QUICKORDER 5043

INITIAL QUICKORDER: 5045

☐ NPRV ☒ SELECTNET

INITIAL QUICKREPORT: 5047

☒ MM ENTRY ☐ OE ENTRY 5080

FULL QUOTATION MENU OPTIONS: 5081

1: INDEX LIST 5084 2: NASDAQ DIR REQ 5083 3: NASDAQ FIRMS 5082 4: NASDAQ PHONE #S 5081

5: NASDAQ NEWS 5085 6: NASDAQ SYMBOL DIR 5086 7: MM CONTACTS 5087 8: TEN MOST ACTIVE 5088

NPRV SCAN REQ 5088

OPEN ORDER PURGE 5088

QUOTE UPDATE 5088

RM ALERTS 5088

RM REQ 5088

SENT ORDER ENTRY 5088

SENT SCAN REQ 5088

SYMBOL MAINT 5088

TEN MOST ACTIVE 5088

FIG. 5

6 / 13

6000

SEC: AAPL

LAST: 38 3/8

HILO: 39 3/8

INS: 38 3/8

COMB. NM10

Q +1/8

Q 38 1/2

Q _c

APPLE COMPUTER INC

VOL: 1864400

PCL: 38 1/4

PCL:

INS:

QUICK UPDATE

UP 1/8 DN

QUICKREPORT NPRV

QUICKORDER SENT

SEND

CLEAR

n	DONCE	38 3/4	39 3/8	c 10-10	n	MSCO	38	38 1/2	c 10-10	↑
n	CHGON	38 3/4	39 1/4	c 10-10	n	BTSC	38 1/8	38 5/8	c 10-10	↑
n	PRUS	39 3/8	38 7/8	c 10-10	n	MONT	38 1/8	38 5/8	c 10-10	↑
n	FBCO	38 3/8	38 7/8	c 10-10	n	PWJC	38 1/8	38 5/8	c 10-10	↑
n	WEED	38 3/8	38 7/8	c 10-10	n	LEHM	38 1/8	38 5/8	c 10-10	↓

1 NOT USED

2 NOT USED

3 NOT USED

4 NOT USED

5 NOT USED

6 NOT USED

7 NOT USED

8 NOT USED

6015

6010

AON

ANY

EXCESS

PARTIAL

COUNTER

KILL

REPLACE

6020

6030

6040

6050

6060

6070

6080

6090

FIG. 6

7 / 13

7000 →

DYNAMIC QUOTE PLUS SETUP

QUOTATION PLUS WINDOWS:

DEFAULT

↑

WINDOW:

↓

ADD BEFORE

ADD AFTER

DELETE

QUOTATION PLUS DISPLAY AS:

☒ COMBINED
 ☐ BID ONLY
 ☐ OFFER ONLY

QUICK ENTRY FUNCTION PREFERENCES:

☒ ENABLE QUICK ENTRY FUNCTIONS

INITIAL QUICK FUNCTION:
☐ QUICKREPORT
☒ QUICKORDER

INITIAL QUICKORDER:
☐ NPRV
☒ SELECTNET

INITIAL QUICKREPORT:
☒ MM ENTRY
☐ OE ENTRY

HOT KEY CHOICE:

ALT F1

↓

QUOTE PLUS TRADE MAN. OPTION:

☐ ALL PREFERRED ORDERS

OPEN DEMO COLOR
 SAVE END SETUP

QUOTATION PLUS MENU OPTIONS:

1: NOT USED	↓	5: NOT USED	↓
2: NOT USED	↓	6: NOT USED	↓
3: NOT USED	↓	7: NOT USED	↓
4: NOT USED	↓	8: NOT USED	↓

7010 →

FIG. 7

8 / 13

8010

8011 SEC: AAPL

8012 BID: MSCO 41

8015 OFFER: PWJC 39 3/4

8025 5/8

8023 QKRPT

8033 QKORD

8031 NPRV

8033 SENT

8013 D: 1

8014 D: 1

8014 NPRV

8020 41 1/2

8023 1/4

8023 DN

8037 QK UPDATE UP

8036 SEND

8038 CLEAR

FIG. 8

9000

9010

9060

QUICK QUOTE SETUP

QUICK QUOTATION WINDOWS:

DEFAULT

9052

9053

9015

WINDOW:

9021

9022

9020

ADD BEFORE

ADD AFTER

DELETE

9040

9045

9048

9080

9090

OPEN

DEMO

COLOR

SAVE

END SETUP

9055

9058

9056

9059

9030

9033

9034

9035

9036

9037

9038

9039

9041

9042

9043

9044

9046

9047

9049

9050

9051

9054

9057

9059

9061

9062

9063

9064

9065

9066

9067

9068

9069

9070

9071

9072

9073

9074

9075

9076

9077

9078

9079

9081

9082

9083

9084

9085

9086

9087

9089

9091

9092

9093

9094

9095

9096

9097

9098

9099

9100

9101

9102

9103

9104

9105

9106

9107

9108

9109

9110

9111

9112

9113

9114

9115

9116

9117

9118

9119

9120

9121

9122

9123

9124

9125

9126

9127

9128

9129

9130

9131

9132

9133

9134

9135

9136

9137

9138

9139

9140

9141

9142

9143

9144

9145

9146

9147

9148

9149

9150

9151

9152

9153

9154

9155

9156

9157

9158

9159

9160

9161

9162

9163

9164

9165

9166

9167

9168

9169

9170

9171

9172

9173

9174

9175

9176

9177

9178

9179

9180

9181

9182

9183

9184

9185

9186

9187

9188

9189

9190

9191

9192

9193

9194

9195

9196

9197

9198

9199

9200

9201

9202

9203

9204

9205

9206

9207

9208

9209

9210

9211

9212

9213

9214

9215

9216

9217

9218

9219

9220

9221

9222

9223

9224

9225

9226

9227

9228

9229

9230

9231

9232

9233

9234

9235

9236

9237

9238

9239

9240

9241

9242

9243

9244

9245

9246

9247

9248

9249

9250

9251

9252

9253

9254

9255

9256

9257

9258

9259

9260

9261

9262

9263

9264

9265

9266

9267

9268

9269

9270

9271

9272

9273

9274

9275

9276

9277

9278

9279

9280

9281

9282

9283

9284

9285

9286

9287

9288

9289

9290

9291

9292

9293

9294

9295

9296

9297

9298

9299

9300

9301

9302

9303

9304

9305

9306

9307

9308

9309

9310

9311

9312

9313

9314

9315

9316

9317

9318

9319

9320

9321

9322

9323

9324

9325

9326

9327

9328

9329

9330

9331

9332

9333

9334

9335

9336

9337

9338

9339

9340

9341

9342

9343

9344

9345

9346

9347

9348

9349

9350

9351

9352

9353

9354

9355

9356

9357

9358

9359

9360

9361

9362

9363

9364

9365

9366

9367

9368

9369

9370

9371

9372

9373

9374

9375

9376

9377

9378

9379

9380

9381

9382

9383

9384

9385

9386

9387

9388

9389

9390

9391

9392

9393

9394

9395

9396

9397

9398

9399

9400

9401

9402

9403

9404

9405

9406

9407

9408

9409

9410

9411

9412

9413

9414

9415

9416

9417

9418

9419

9420

9421

9422

9423

9424

9425

9426

9427

9428

9429

9430

9431

9432

9433

9434

9435

9436

9437

9438

9439

9440

9441

9442

9443

9444

9445

9446

9447

9448

9449

9450

9451

9452

9453

9454

9455

9456

9457

9458

9459

9460

9461

9462

9463

9464

9465

9466

9467

9468

9469

9470

9471

9472

9473

9474

9475

9476

9477

9478

9479

9480

9481

9482

9483

9484

9485

9486

9487

9488

9489

9490

9491

9492

9493

9494

9495

9496

9497

9498

9499

9500

9501

9502

9503

9504

9505

9506

9507

9508

9509

9510

9511

9512

9513

9514

9515

9516

9517

9518

9519

9520

9521

9522

9523

9524

9525

9526

9527

9528

9529

9530

9531

9532

9533

9534

9535

9536

9537

9538

9539

9540

9541

9542

9543

9544

9545

9546

9547

9548

9549

9550

9551

9552

9553

9554

9555

9556

9557

9558

9559

9560

9561

9562

9563

9564

9565

9566

9567

9568

9569

9570

9571

9572

9573

9574

9575

9576

9577

9578

9579

9580

9581

9582

9583

9584

9585

9586

9587

9588

9589

9590

9591

9592

9593

9594

9595

9596

9597

9598

9599

9600

9601

9602

9603

9604

9605

9606

9607

9608

9609

9610

9611

9612

9613

9614

9615

9616

9617

9618

9619

9620

9621

9622

9623

9624

9625

9626

9627

9628

9629

9630

9631

9632

9633

9634

9635

9636

9637

9638

9639

9640

9641

9642

9643

9644

9645

9646

9647

9648

9649

9650

9651

9652

9653

9654

9655

9656

9657

9658

9659

9660

9661

9662

9663

9664

9665

9666

9667

9668

9669

9670

9671

9672

9673

9674

9675

9676

9677

9678

9679

9680

9681

9682

9683

9684

9685

9686

9687

9688

9689

9690

9691

9692

9693

9694

9695

9696

9697

9698

9699

9700

9701

9702

9703

9704

9705

9706

9707

9708

9709

9710

9711

9712

9713

9714

9715

9716

9717

9718

9719

9720

9721

9722

9723

9724

9725

9726

9727

9728

9729

9730

9731

9732

9733

9734

9735

9736

9737

9738

9739

9740

9741

9742

9743

9744

9745

9746

9747

9748

9749

9750

9751

9752

9753

9754

9755

9756

9757

9758

9759

9760

9761

9762

9763

9764

9765

9766

9767

9768

9769

9770

9771

9772

9773

9774

9775

9776

9777

9778

9779

9780

9781

9782

9783

9784

9785

9786

9787

9788

9789

9790

9791

9792

9793

9794

9795

9796

9797

9798

9799

9800

9801

9802

9803

9804

9805

9806

9807

9808

9809

9810

9811

9812

9813

9814

9815

9816

9817

9818

9819

9820

9821

9822

9823

9824

9825

9826

9827

9828

9829

9830

9831

9832

9833

9834

9835

9836

9837

9838

9839

9840

9841

9842

9843

9844

9845

9846

9847

9848

9849

9850

9851

9852

9853

9854

9855

9856

9857

9858

9859

9860

9861

9862

9863

9864

9865

9866

9867

9868

9869

9870

9871

9872

9873

9874

9875

9876

9877

9878

9879

9880

9881

9882

9883

9884

9885

9886

9887

9888

9889

9890

9891

9892

9893

9894

9895

9896

9897

9898

9899

9900

9901

9902

9903

9904

9905

9906

9907

9908

9909

9910

9911

9912

9913

9914

9915

9916

9917

9918

9919

9920

9921

9922

9923

9924

9925

9926

9927

9928

9929

9930

9931

9932

9933

9934

9935

9936

9937

9938

9939

9940

9941

9942

9943

9944

9945

9946

9947

9948

9949

9950

9951

9952

9953

9954

9955

9956

9957

9958

9959

9960

9961

9962

9963

9964

9965

9966

9967

9968

9969

9970

9971

9972

9973

9974

9975

9976

9977

9978

9979

9980

9981

9982

9983

9984

9985

9986

9987

9988

9989

9990

9991

9992

9993

9994

9995

9996

9997

9998

9999

10000

10001

10002

10003

10004

10005

10006

10007

10008

10009

10010

10011

10012

10013

10014

10015

10016

10017

10018

10019

10020

10021

10022

10023

10024

10025

10026

10027

10028

10029

10030

10031

10032

10033

10034

10035

10036

10037

10038

10039

10040

10041

10042

10043

10044

10045

10046

10047

10048

10049

10050

10051

10052

10053

10054

10055

10056

10057

10058

10059

10060

10061

10062

10063

10064

10065

10066

10067

10068

10069

10070

10071

10072

10073

10074

10075

10076

10077

10078

10079

10080

10081

10082

10083

10084

10085

10086

10087

10088

10089

10090

10091

10092

10093

10094

10095

10096

10097

10098

10099

10100

10101

10102

10103

10104

10105

10106

10107

10108

10109

10110

10111

10112

10113

10114

10115

10116

10117

10118

10119

10120

10121

10122

10123

10124

10125

10126

10127

10128

10129

10130

10131

10132

10133

10134

10135

10136

10137

10138

10139

10140

10141

10142

10143

10144

10145

10146

10147

10148

10149

10150

10151

10152

10153

10154

10155

10156

10157

10158

10159

10160

10161

10162

10163

10164

10165

10166

10167

10168

10169

10170

10171

10172

10173

10174

10175

10176

10177

10178

10179

10180

10181

10182

10183

10184

10185

10186

10187

10188

10189

10190

10191

10192

10193

10194

10195

10196

10197

10198

10199

10200

10201

10202

10203

10204

10205

10206

10207

10208

10209

10210

10211

10212

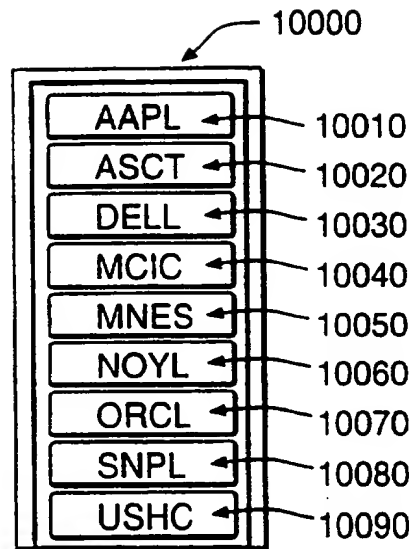
10213

10214

10215

1021

10 / 13

**FIG. 10**

ORCL	↓	39 1/4	Q	39 3/8	Q	....	ORCL	MSCO	38 7/8	39 3/8	....
ORCL	↓	39 1/4	Q	39 1/2	Q	....	ORCL	MSCO	39	39 1/2	....
NOVL		MSCO	16 1/4	16 3/4	....	NOVL	MSCO	16 3/8	16 7/8	....

12000

FIG. 12

11000

QUICKPIK SETUP

11010

QUICKPIK WINDOW SYMBOLS:

AAPL	↑
ASCT	
DELL	
MCIC	
MNES	↓

11020

SYMBOL:

11021

ADD BEFORE

11022

ADD AFTER

11023

DELETE

11051

OPEN

11052

SAVE

11053

DEMO

11054

END SETUP

11030

CRUISE CONTROL OPTIONS:

11031

☒ ENABLE CRUISE CONTROL

11032

DELAY IN SECONDS:

11033

START/STOP KEY

11040

SYMBOL ARRANGEMENT:

11043

ACROSS:

11044

DOWN:

11041

☒ AS ENTERED

☐ ALPHABETICAL

FIG. 11

12 / 13

13000

TICKER SETUP

TICKER WINDOWS:

13010

DEFAULT

13030

13032

SYMBOLS:

ASCT

MLHR

USHC

SNPL

13040

SYMBOL:

13041

13042

13043

13044

13045

13046

13047

13048

13049

13050

13051

13052

13053

13054

13055

13056

13057

13058

13059

13060

13061

13062

13063

13064

13065

13066

13067

13068

13069

13070

13071

13072

13073

13074

13075

13076

13077

13078

13079

13080

13081

13082

13083

13084

13085

13086

13087

13088

13089

13090

13091

13092

13093

13094

13095

13096

13097

13098

13099

TICKER OPTIONS:

13060

13061

13062

13063

13064

13065

13066

13067

13068

13069

13070

13071

13072

13073

13074

13075

13076

13077

13078

13079

13080

13081

13082

13083

13084

13085

13086

13087

13088

13089

13090

13091

13092

13093

13094

13095

13096

13097

13098

13099

FIG. 13

14000
SYMBOL MAINTENANCE

SYMBOL	TICKSIZE	TICKER	MKTMIND	QUICK PIK	TRDMAN
AAPL	1/8	Y	Y	Y	Y
ASCT	1/8	Y	Y	Y	Y
BBBY	1/8	N	Y	N	N
BEEF	1/8	N	Y	N	N
BZHKF	1/8	N	Y	N	N
DBHT	1/8	Y	N	N	N
DELL	1/8	Y	Y	Y	Y
MCIC	1/8	Y	Y	Y	Y
MLHR	1/8	Y	Y	N	N
MLIS	1/8	N	Y	N	Y
MNES	1/8	Y	Y	Y	Y

ADD TO:

TICKER

MARKET MIND

QUICK PIK

TRADE MANAGER

DEL FROM:

TICKER

MARKET MIND

QUICK PIK

TRADE MANAGER

1/8

1/4

3/8

1/2

5/8

3/4

7/8

1/16

1/32

1/64

FRAC

SYMBOL: AAPL

TICK SIZE: 1/6

14010

NEXT

PREVIOUS

ADD

DELETE

END SETUP

FIG. 14

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US97/17131

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : G06F 17/60

US CL : 705/35, 37

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/35, 37

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,297,032 A (TROJAN ET AL.) 22 March 1994, abstract, col. 2, line 22 to col. 3, line 20 and col. 8, line 52 to col. 9, line 18.	1-25
--		-----
Y	col. 2, line 22 to col. 3, line 20	26-28
Y	US 5,490,245 A (WUGOFSKI) 06 February 1996, abstract and col. 2, line 10 to col. 3, line 31.	26-28



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

A

document defining the general state of the art which is not considered to be of particular relevance

E

earlier document published on or after the international filing date

L

document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O

document referring to an oral disclosure, use, exhibition or other means

P

document published prior to the international filing date but later than the priority date claimed

T

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

A

document member of the same patent family

Date of the actual completion of the international search

29 DECEMBER 1997

Date of mailing of the international search report

28 JAN 1998

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

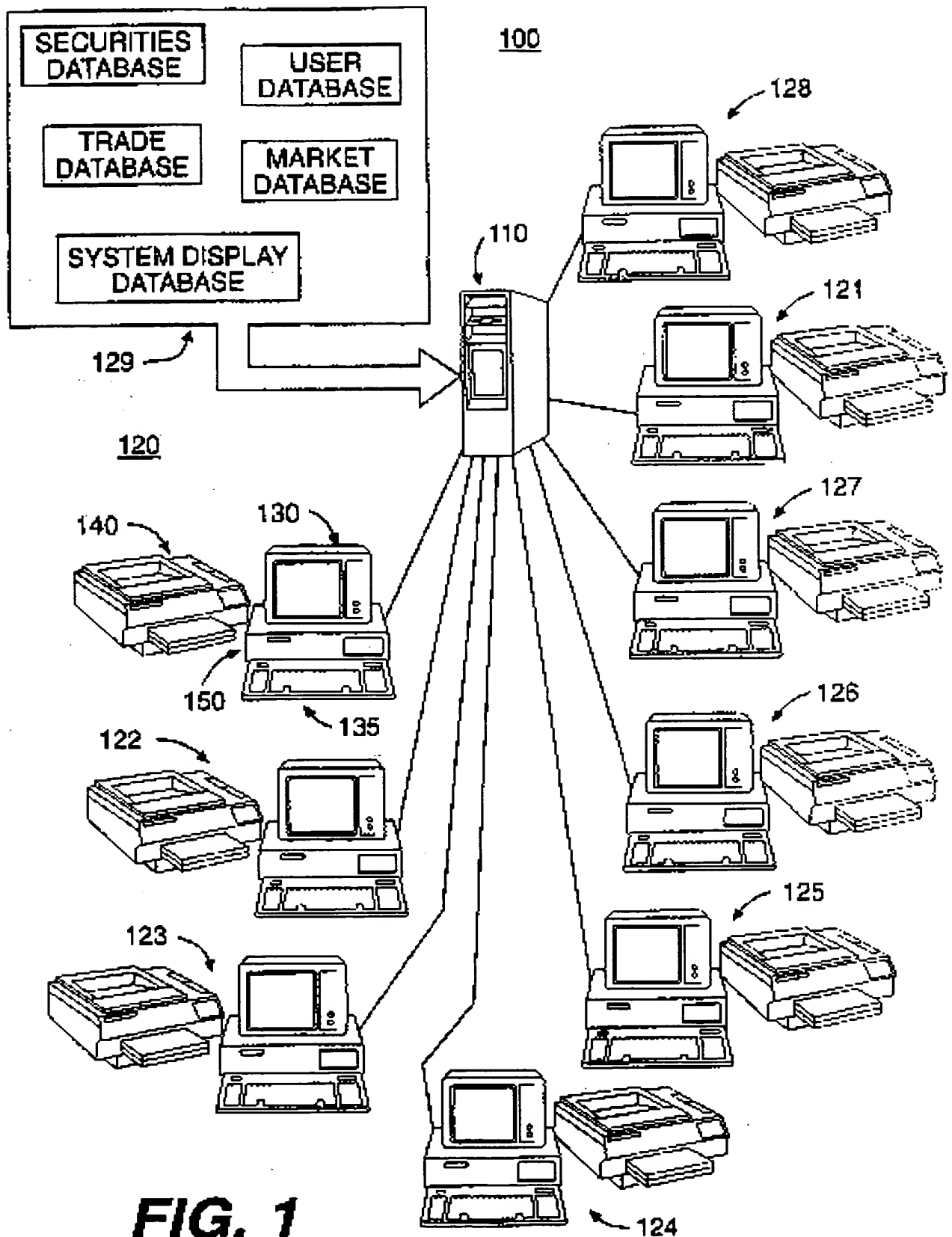
GAIL HAYES

Telephone No. (703) 305-9711

Form PCT/ISA/210 (second sheet)(July 1992)*

THIS PAGE BLANK (USPTO)

1 / 13

**FIG. 1**

2 / 13

2000

NASDAQ WORKSTATION II LOGON

2060 SDP: ORGID: 2070

core NEED

PLEASE ENTER YOUR...

USER ID: 2010

PASSWORD: 2020

2040 ☒ SCREEN SETUP 2050

2030 LOGON HELP EXIT 2040

COPYRIGHT © 1993
NASDAQ STOCK MARKET, INC.
ALL RIGHTS RESERVED
COPYRIGHTED AS AN
UNPUBLISHED WORK.

FIG. 2

3 / 13

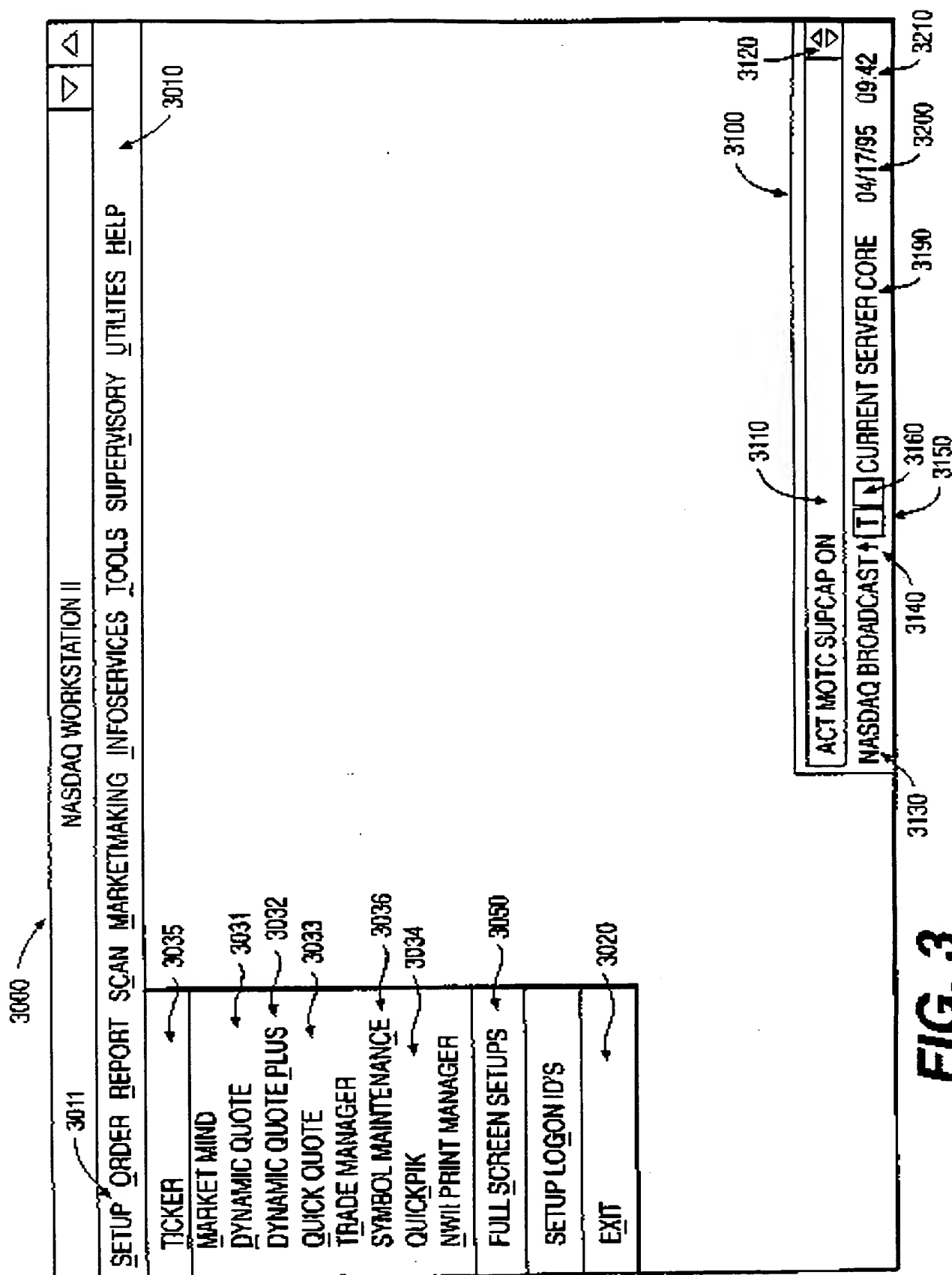


FIG. 3

[illegible]

FIG. 4

5000

DYNAMIC QUOTE SETUP 5072 5073 5070

DYNAMIC QUOTATION DISPLAY AS:

☒ COMBINED ☐ BID ONLY ☐ OFFER ONLY

5071

DYNAMIC QUOTATION WINDOWS:

TEST 5042

TEST1 5015

WINDOW:

ADD BEFORE ADD AFTER DELETE 5020

HOT KEY CHOICE:

ALT F1 5030

OPEN DEMO COLOR 5096

SAVE END SETUP 5095

5010

5021

5022

5097

5050

5098

5084

5083

5082

5081

5088

5087

5086

5085

5080

5047

5046

5045

5043

5044

5040

QUICK ENTRY FUNCTION: ☐ QUICKREPORT ☒ QUICKORDER

INITIAL QUICKORDER: ☐ NPRV ☒ SELECTNET

ENABLE QUICK ENTRY FUNCTIONS ☒ 5046

QUICK ENTRY FUNCTION PREFERENCES:

INITIAL QUICKREPORT: ☒ MM ENTRY ☐ OE ENTRY

FULL QUOTATION MENU OPTIONS:

1: INDEX LIST 5: NASDAQ NEWS

2: NASDAQ DIR REQ 6: NASDAQ SYMBOL DIR

3: NASDAQ FIRMS 7: MM CONTACTS

4: NASDAQ PHONE #S 8: TEN MOST ACTIVE

NPRV SCAN REQ

OPEN ORDER PURGE

QUOTE UPDATE

RM ALERTS

RM REQ

SENT ORDER ENTRY

SENT SCAN REQ

SYMBOL MAINT

TEN MOST ACTIVE

FIG. 5

8 / 13

6000

APPLE COMPUTER INC										
SEC: AAPL	COMB. <input checked="" type="checkbox"/>	NM10								
LAST: 38 3/8	Q +1/8	04:01	VOL: 1864400	PCL: 38 1/4	<input type="checkbox"/> CL					
HILO: 39 3/8	37 7/8									
INS: 38 3/8	<input checked="" type="checkbox"/> Q	38 1/2	Q_c							
				<input type="checkbox"/> PCL:						
				INS:						
<div> <div> <div>QUICK UPDATE</div> <div>UP <input type="checkbox"/> 1/8 <input type="checkbox"/> DN</div> </div> <div> <div> <input type="radio"/> QUICKREPORT <input type="radio"/> NPRV <input checked="" type="radio"/> QUICKORDER <input checked="" type="radio"/> SENT </div> <div> <input type="text"/> </div> </div> <div> <div>SEND</div> <div>CLEAR</div> </div> </div>										
n	DONCE	38 3/4	39 3/8	c 10-10	n	MSCO	38	38 1/2	c 10-10	<input checked="" type="checkbox"/>
n	CHGON	38 3/4	39 1/4	c 10-10	n	BTSC	38 1/8	38 5/8	c 10-10	<input type="checkbox"/>
n	PRUS	39 3/8	38 7/8	c 10-10	n	MONT	38 1/8	38 5/8	c 10-10	<input type="checkbox"/>
n	FBCO	38 3/8	38 7/8	c 10-10	n	PWJC	38 1/8	38 5/8	c 10-10	<input type="checkbox"/>
n	WEED	38 3/8	38 7/8	c 10-10	n	LEHM	38 1/8	38 5/8	c 10-10	<input checked="" type="checkbox"/>
1NOT USED		2NOT USED	3NOT USED	4NOT USED	5NOT USED		6NOT USED	7NOT USED	8NOT USED	6015
<div> <div> <div>AON</div> <div>ANY</div> <div>EXCESS</div> <div>PARTIAL</div> <div>COUNTER</div> <div>DECLINE</div> <div>KILL</div> <div>REPLACE</div> </div> <div>6020</div> <div>6030</div> <div>6040</div> <div>6050</div> <div>6060</div> <div>6070</div> <div>6080</div> <div>6090</div> </div>										

FIG. 6

7 / 13

7000

DYNAMIC QUOTE PLUS SETUP																	
<p>QUOTATION PLUS WINDOWS:</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> <p>DEFAULT</p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div> </div> <p>WINDOW: </p> <p> ADD BEFORE ADD AFTER DELETE </p>	<p>QUOTATION PLUS DISPLAY AS:</p> <p> <input checked="" type="radio"/> COMBINED <input type="radio"/> BID ONLY <input type="radio"/> OFFER ONLY </p> <p>QUICK ENTRY FUNCTION PREFERENCES:</p> <p><input checked="" type="checkbox"/> ENABLE QUICK ENTRY FUNCTIONS</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>INITIAL QUICK FUNCTION:</p> <p> <input type="radio"/> QUICKREPORT <input type="radio"/> NPRV <input checked="" type="radio"/> QUICKORDER </p> </div> <div style="width: 45%;"> <p>INITIAL QUICKORDER:</p> <p> <input checked="" type="radio"/> SELECTNET <input type="radio"/> MM ENTRY <input type="radio"/> OE ENTRY </p> </div> </div>																
<p>HOT KEY CHOICE:</p> <p> ALT F1 ↕ </p>	<p>QUOTATION PLUS MENU OPTIONS:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">1:</td> <td style="width: 25%; border: 1px solid black; padding: 2px;">NOT USED</td> <td style="width: 15%;">5:</td> <td style="width: 25%; border: 1px solid black; padding: 2px;">NOT USED</td> </tr> <tr> <td>2:</td> <td style="border: 1px solid black; padding: 2px;">NOT USED</td> <td>6:</td> <td style="border: 1px solid black; padding: 2px;">NOT USED</td> </tr> <tr> <td>3:</td> <td style="border: 1px solid black; padding: 2px;">NOT USED</td> <td>7:</td> <td style="border: 1px solid black; padding: 2px;">NOT USED</td> </tr> <tr> <td>4:</td> <td style="border: 1px solid black; padding: 2px;">NOT USED</td> <td>8:</td> <td style="border: 1px solid black; padding: 2px;">NOT USED</td> </tr> </table>	1:	NOT USED	5:	NOT USED	2:	NOT USED	6:	NOT USED	3:	NOT USED	7:	NOT USED	4:	NOT USED	8:	NOT USED
1:	NOT USED	5:	NOT USED														
2:	NOT USED	6:	NOT USED														
3:	NOT USED	7:	NOT USED														
4:	NOT USED	8:	NOT USED														
<p>QUOTE PLUS TRADE MAN. OPTION:</p> <p> <input type="checkbox"/> ALL PREFERRED ORDERS </p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; border: 1px solid black; padding: 2px;">OPEN</td> <td style="width: 25%; border: 1px solid black; padding: 2px;">DEMO</td> <td style="width: 25%; border: 1px solid black; padding: 2px;">COLOR</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">SAVE</td> <td style="border: 1px solid black; padding: 2px;">END SETUP</td> <td></td> </tr> </table>	OPEN	DEMO	COLOR	SAVE	END SETUP												
OPEN	DEMO	COLOR															
SAVE	END SETUP																

7010

FIG. 7

8 / 13

8010

8011 SEC: AAPL

8012 BID: MSCO 41

8015 OFFER: PWJC 39 3/4

8025 YOUR: MSCO 41

8013 D: 1

8014 D: 1

8020 5/8

8023 1/4

8031 QK UPDATE

8023 QKRPT NPRV

8033 QKORD SENT

8037 SEND

8038 CLEAR

8036

FIG. 8

9000

9010 9060

QUICK QUOTATION WINDOWS:

DEFAULT

9052 9053

QUICK QUOTE SETUP

QUICK ENTRY FUNCTION PREFERENCES:

☒ ENABLE QUICK ENTRY FUNCTIONS 9055

INITIAL QUICK FUNCTION:

☒ QUICKREPORT 9052

☐ QUICKORDER 9053

INITIAL QUICKORDER:

☐ NPRV 9056

☒ SELECTNET 9059

INITIAL QUICKREPORT:

☒ MM ENTRY 9058

☐ OE ENTRY

HOT KEY CHOICE:

ALT F1 9030

WINDOW: 9015

ADD BEFORE 9021

ADD AFTER 9022

DELETE 9020

OPEN 9040

DEMO 9045

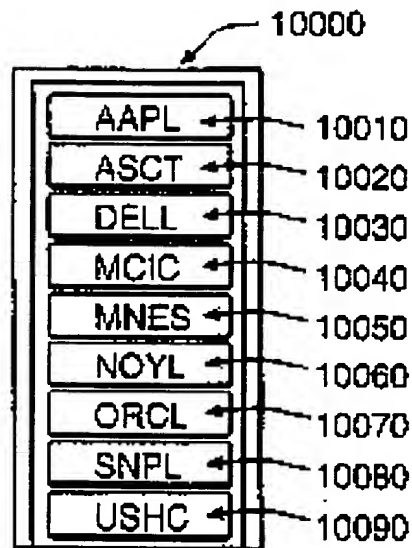
COLOR 9048

SAVE 9080

END SETUP 9090

FIG. 9

10 / 13

**FIG. 10**

ORCL	↓	39 1/4	Q	39 3/8	Q	...	ORCL	MSCO	38 7/8	39 3/8	...
ORCL	↓	39 1/4	Q	39 1/2	Q	...	ORCL	MSCO	39	39 1/2	...
NOVL		MSCO	16 1/4	16 3/4	...	NOVL	MSCO	16 3/8	16 7/8	...	

12000

FIG. 12

11 / 13

11000

QUICKPIK SETUP

QUICKPIK WINDOW SYMBOLS:

AAPL ASCT DELL MCIC MNES

SYMBOL:

ADD BEFORE ADD AFTER DELETE

OPEN SAVE DEMO END SETUP

CRUISE CONTROL OPTIONS:

☒ ENABLE CRUISE CONTROL

DELAY IN SECONDS: 20

START/STOP KEY ALT F10

SYMBOL ARRANGEMENT:

ACROSS: 4

DOWN: 6

☒ AS ENTERED

☐ ALPHABETICAL

11010 11020 11021 11022 11023 11030 11031 11032 11033 11040 11043 11044 11041 11042 11051 11052 11053 11054

FIG. 11

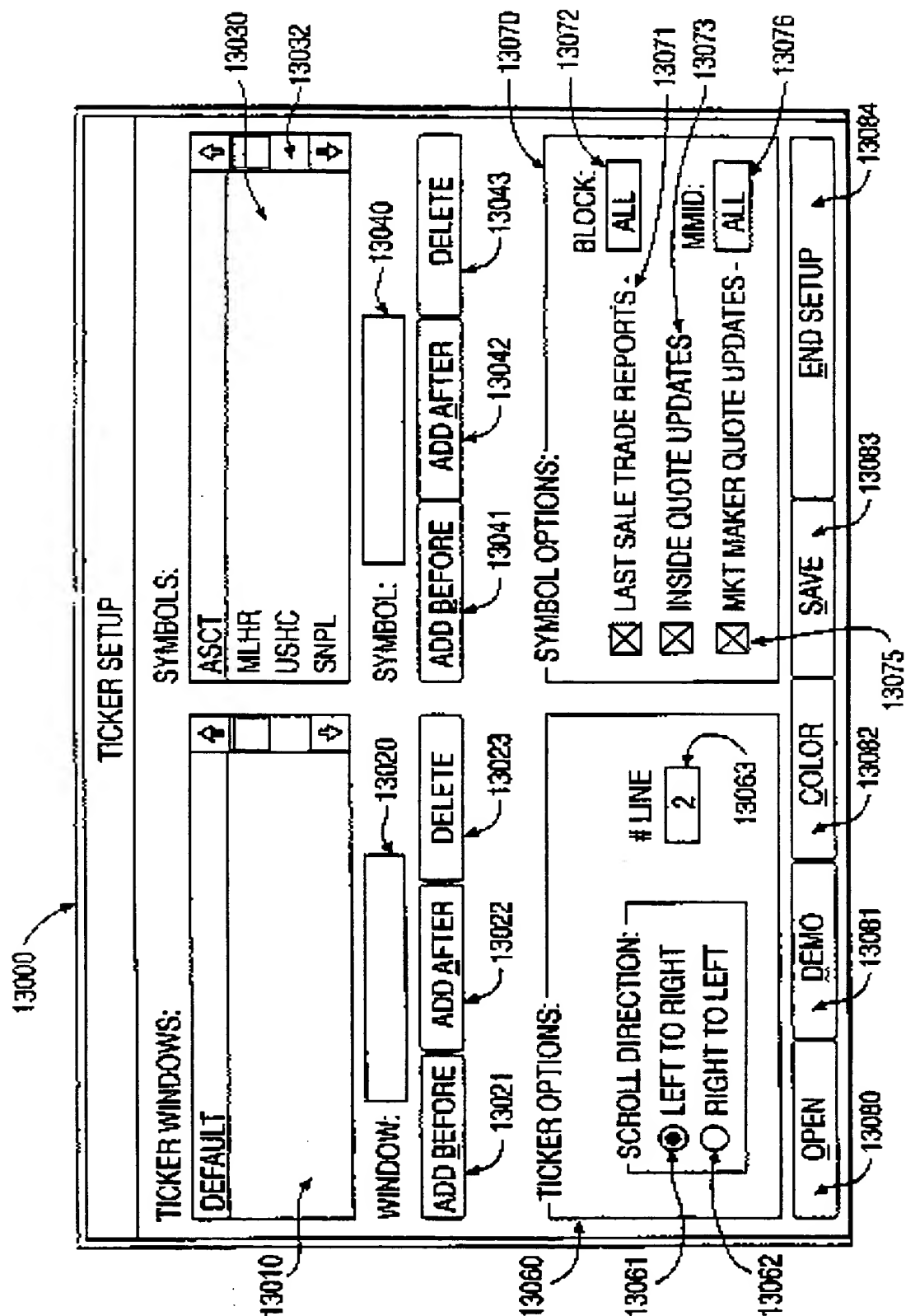


FIG. 13

SYMBOL	TICKSIZE	TICKER	MKTMIND	QUICKPIK	TRDMAN
AAPL	1/8	Y	Y	Y	Y
ASCT	1/8	Y	Y	Y	Y
BBBY	1/8	N	Y	N	N
BEEF	1/8	N	Y	N	N
BZHKF	1/8	N	Y	N	N
DBHT	1/8	Y	N	N	N
DELL	1/8	Y	Y	Y	Y
MCIC	1/8	Y	Y	Y	Y
MLHR	1/8	Y	Y	N	N
MLIS	1/8	N	Y	N	Y
MNES	1/8	Y	Y	Y	Y

SYMBOL: AAPL
TICK SIZE: 1/6

NEXT
PREVIOUS
ADD
DELETE
END SETUP

ADD TO:

TICKER

MARKET MIND

QUICK PIK

TRADE MANAGER

DEL FROM:

TICKER

MARKET MIND

QUICK PIK

TRADE MANAGER

SYMBOL	TICKSIZE	TICKER	MKTMIND	QUICKPIK	TRDMAN
AAPL	1/8	Y	Y	Y	Y
ASCT	1/8	Y	Y	Y	Y
BBBY	1/8	N	Y	N	N
BEEF	1/8	N	Y	N	N
BZHKF	1/8	N	Y	N	N
DBHT	1/8	Y	N	N	N
DELL	1/8	Y	Y	Y	Y
MCIC	1/8	Y	Y	Y	Y
MLHR	1/8	Y	Y	N	N
MLIS	1/8	N	Y	N	Y
MNES	1/8	Y	Y	Y	Y

SYMBOL: AAPL
TICK SIZE: 1/6

NEXT
PREVIOUS
ADD
DELETE
END SETUP

FIG. 14

THIS PAGE BLANK (USPTO)